WHAT IS CLAIMED IS:

1. Apparatus for supplying power to transmitting and receiving antennas of a ROSAR system that are integrated at tips of a helicopter rotor blade and operate on-line in near real time, in pulse frequency or in the cm- or mm-wavelength range, said apparatus comprising:

at least one transponder card, arranged at said tips of said rotor blade and having at least one flat channel extending therethrough; and

mini-turbine generator sets integrated into said at least one flat channel extending through said transponder card, whereby conversion of wind energy to electrical energy is accomplished.

2. Apparatus for supplying power to transmitting and receiving antennas of a ROSAR system that are integrated at tips of a helicopter rotor blade and operate on-line in near real time, in pulse frequency or in the cm- or mm-wavelength range, said apparatus comprising:

at least one transponder card, arranged at said tips of said rotor blade and having at least one flat channel extending therethrough; and

a plurality of fluttering bands that are integrated into said at least one flat channel extending through said transponder card, whereby wind energy is converted to electrical energy.

3. Apparatus for supplying power to transmitting and receiving antennas of a ROSAR system that are integrated at the tip of a helicopter rotor blade and operate on-line in near real time, in pulse frequency or in the cm- or mm-wavelength range said apparatus comprising:

at least one flat channel provided in a transponder card; and

an electric ionization device arranged in said at least one flat channel, said electric ionization device generating an ion stream which is driven by wind energy, and is collected by a collector;

wherein the collector and the ionization device form the terminals of an electric generator for converting aerodynamic energy into electrical energy.

4. The apparatus for supplying power to transmitting and receiving antennas in accordance with Claim 1, wherein said mini-turbine generator sets comprise miniaturized

turboelectric generators oriented parallel to a wind direction in said at least one flat channel.

5. The apparatus for supplying power in accordance with Claim 1, wherein:

said at least one transponder card is flat and streamlined in its outer shape; and

height of said at least one transponder card does not exceed 10 mm.

6. The apparatus for supplying power in accordance with Claim 2, wherein:

said at least one transponder card is flat and streamlined in its outer shape; and

height of said at least one transponder card does not exceed 10 mm.

7. The apparatus for supplying power in accordance with Claim 3, wherein:

said at least one transponder card is flat and streamlined in its outer shape; and

height of said at least one transponder card does not exceed 10 mm.

8. The apparatus for supplying power in accordance with Claim 1, wherein:

the transponder card is divided into a plurality of wind channels, which extend parallel to a wind direction;

a plurality correspondingly sized bands are positioned in said wind channels for generating flutter energy; and

said bands are equipped with a piezoelectric layer and have electrodes provided at their beginning and end.

9. The apparatus for supplying power in accordance with Claim 2, wherein:

the bands have magnetic layers; and

a flat coil having one or more turns is positioned opposite said bands.

10. The apparatus for supplying power in accordance with Claim 6, wherein:

the bands have magnetic layers; and

a flat coil having one or more turns is positioned opposite said bands.

11. The apparatus for supplying power in accordance with Claim 9, wherein the bands are electrically connected to one another in series or parallel.

12. The apparatus for supplying power in accordance with Claim 3, wherein:

said at least one flat channel guides a wind flow; and

said ionization device is a peak ionization device that is continuously operated or periodically switched on and off.

13. The apparatus for supplying power in accordance with Claim 3, further comprising:

a magnetic device for dividing the intermittent stream into two separate channels positioned directly behind the ionization device; and

collectors connected to said magnetic device.

14. Apparatus for supplying electric power to components of a ROSAR system that are arranged at respective tips of helicopter rotor blades, said apparatus comprising:

at least one transponder card arranged at a tip of one of said blades;

at least one flat air flow channel extending through said at least one transponder card; and

means disposed in said at lest one channel for converting wind energy into electrical energy.

15. The apparatus according to Claim 14, wherein said components are antennae.